

Generic Patterns of Verbs in Literature Review: Analysis of Dissertations in the field of English Studies in Pakistan

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Article Info	Abstract
<p>Article History</p> <p>Received: April 10, 2021</p> <p>Accepted: November 11, 2021</p> <hr/> <p>Keywords : Dissertation, English Studies, Generic Patterns, Literature Review, Verbs.</p> <p>DOI: 10.5281/zenodo.5676238</p>	<p><i>The encoding of the literature review in dissertations requires an understanding of the generic patterns of the use and functions of verbs. In the current study, the frequently used types and categories of verbs are identified and their generic patterns in terms of functions are analyzed in the literature review chapter of dissertations in the field of English studies in Pakistan. By adopting a Corpus-Based research approach, sample corpora of the literature review chapters from Ph.D. dissertations in the field of English literature, linguistics, and English language teaching were developed. A keyword list of different types and categories of verbs was generated by following the 'Typology of verbs' (Frels, Onwuegbuzie, & Slate 2010). Frequencies of these types and categories of verbs are analyzed by using Antconc (version: 3.4.1.0) and the generic patterns in terms of their functions are studied in the corpora of literature review chapters of dissertations in the field of English studies in Pakistan. The study is significant as it has described the verbal patterns of Pakistani writers in encoding review of literature in dissertations and compares it with the generic patterns of verbs in the literature review sections of research articles by native writers.</i></p>

Introduction

A literature review is an important part of a research manuscript and dissertation. It is a very significant chapter in the dissertation as it describes the theoretical and methodological contributions related to a particular study. It provides insight into the background and interpretation of the existing research in a particular domain of research. Paltridge and Starfield (2007) argue that in writing a literature review, students not only need to encode about 'what they know' rather what they 'think about what they have read' and in writing the review of literature, 'particular purposes and audiences lead writers to employ very different choices' (Hyland & Tse, 2009). Therefore, in writing a literature review, students need to reflect their critical evaluation of the review of literature related to the topic (Pennycook 1996; Canagarajah 2002).

In writing a review of literature, scholars need to follow the fundamental principles of clarity and precision that entail careful selection of words, including the appropriate use of verbs. For Frels, Onwuegbuzie, and Slate (2010), verbs are the most important words in developing and determining the appropriate meanings in a sentence whereas, inaccurate and overuse of verbs can disrupt the comprehension of meanings. According to the American Psychological Association Publications Manual guidelines "verbs are vigorous, direct communicators" (2010, 77). In encoding review of literature in a dissertation, verbs play a very vital role as with verbs a writer expresses his stance as a researcher, quotes the review of the related research, describes the cause and effect of the review of literature, establishes the comparison and contrast of the reviewed literature, modulates his ideas and positions his work to the research of the other members of the discipline (Biber et al. 1999). Since the literature review deals with the reporting of previous research, therefore scholars need to understand the appropriate use of verbs practiced in central, non-central, and non-reporting styles of reporting (Swales 1990 & 2004). In reviewing and critiquing previous research, the use of evaluative language is required for identifying the position or stance of the writer with the quoted research in literature research. Thus appropriate use of verbs enables writers "to shape their arguments to the needs and expectations of their target readers and their attitude and commitment to what they have read" (Hyland 2004, 134).

The current study aimed at analyzing the patterns and the functions of verbs in encoding the review of literature in the literature review chapter of dissertations. The study has specifically focused on the analysis of the frequently used categories and types of verbs that were identified by Frels, Onwuegbuzie, and Slate in research articles across the different disciplines in 2010. The frequencies of these categories and types of verbs are identified in the literature review chapter of dissertations in the field of English studies in Pakistan; their functions in encoding are analyzed and compared with the findings of the study by Frels, Onwuegbuzie and

Slate (2010). The study is significant in developing the understanding of the use and functions of verbs and can guide novice writers in encoding research in the literature review chapter of dissertations.

Literature Review

Academic writing is a mean of manifesting academic literacy through the assessment of a written argument. Writing this argument is a key factor especially for graduate and postgraduate students to prove their worth in the academic environment because it primarily requires such academic writing skills that facilitate the students with the ability to initiate, develop and handle academic discourse. Academic writing also instills the development and manifestation of language productive skills with special reference to writing that is a part and parcel of academia at the university level. "Writing is a complex task which combines several components of academic literacy, all centered on the unique feature of academic discourse i.e. distinction making" (Pot & Weideman 2015). Weideman (2014) also notes that the different activities in academic writing involve the processes like collecting information either through the skills like reading or listening, making or reviewing notes or through discussions with the concerned people; the processing of the collected information by analyzing the information that includes 'distinction-making' especially through the activities like comparisons, contrasts, and categorization and new information is produced in writing by stating an opinion based on the previous processes and final result of the analytical activity or distinction-making is articulated. Curry and Lillis (2004) assert the need to acknowledge that "academic writing is a social practice, allowing students to develop their voice and academic identity".

In the domain of academic writing, a considerable amount of research focused on identifying the generic patterning of the use of language that can function as pedagogic models for novice writers (see e.g. Paltridge & Starfield 2007; Swales & Feak 1994 & 2000). Swales (1990) and Bhatia (1993), identified the schematic structure and sequential patterning of communicative acts across different genres. Flowerdew (1998 & 2008); Upton & Connor (2001) investigated the typical lexicogrammatical realizations in thesis writing. Scott & Tribble (2006) identified the typical collocations and associated communicative functions of the most frequently used key lexical items in a corpus of literature review chapter in dissertations across the different disciplines. Kwan (2006) conducted a move analysis of the introduction and literature review in the Ph.D. thesis in Applied Linguistics and identified notable structural differences in the schematic structure of these sections. One of the specifics of academic writing is to cite the works of other researchers in the literature review chapter that serves a particular communicative purpose. For Hyland (1999, 2000 & 2002) referring to ideas and works of other researchers plays a vital role in the development and construction of knowledge. To appropriately integrate the ideas and words of other researchers and encode these persuasively; writers need to acquire the required skills for the appropriate and effective use of citations in the literature review (White, 2004). Jalilifar (2012) found that writers use syntactic, semantic, and pragmatic variations in referring to the works whereas, Bloch (2010) illustrated the importance of the verbs in reporting the works of other researchers in the literature review. With the appropriate use of verbs, writers can explicitly establish the credibility of the reported claims (Thompson & Ye 1991; Hawes & Thomas 1994; Hyland, 1999 & 2002). Hyland (2005) argues that the appropriate use of verbs enables writers to express 'a stance and connect or align themselves with the readers'. Thompson and Ye (1991) have also stated that with the appropriate choice of verbs writers can report their claims or ideas and demonstrate their attitudes towards the others' claims.

Verbs in academic writing have been classified into different categories in terms of their function in encoding research. Hinkel (2004) categorize verbs into five types: activity verbs (make, use, give), reporting verbs (suggest, discuss, argue, propose), mental/emotive verbs (know, think, see), linking verbs (appear, become, keep, prove) and logico-semantic relationship verbs (contrast, follow, cause, illustrate). Thompson and Ye's (1991) further categorized reporting verbs into three basic i.e. textual, mental, and research verbs; later on, Hyland (2002) employed the terms discourse and cognition for Thompson and Ye's textual and mental verb. Shaw (1992), Thomas & Hawes (1994), Hyland (1999), and Charles (2006) researched the use and functions of reporting verbs. Meyer (1997) analyzed high-frequency verbs like 'find' or 'show' and identified their meanings in different texts. Hiltunen (2006) conducted a detailed investigation of the forms and functions of 'coming-to-know verbs'. Williams (1996) researched frequently used lexical verbs in medical reports. Nesselhauf (2005) explored the misuse of collocations in verb-noun combinations by German EFL learners. Hyland (2002 & 2008) has also reported the difficulties faced by non-native writers in using appropriate reporting verbs for claiming their stance towards the works and ideas of the other researchers. Likewise, Pecorari (2008) has found that non-native English writers often use reporting verbs randomly without 'consciousness of the subtleties of language necessary for reporting claims'. Few studies have also been conducted on the use and functions of reporting verbs in the literature review chapter of dissertations. For instance, Navratilova (2008) and Jalilifar (2012) revealed the frequently used verbs in the citations of previous studies in the theses written by Czech and Iranian M.A. students. Soler-Monreal and Gil-Salom (2012) highlighted the use of passive and impersonal structures in

the review of literature by the Spanish writers. In the present study, the frequently used categories and types of verbs in the literature review chapters of Ph.D. dissertations in the field of English studies in Pakistan are identified, their functions in encoding research are analyzed and compared with the use and functions of these verbs in encoding review of literature in research papers are compared.

Method

Corpus-Based Approach

The corpus-based approach for studying language has been on the increase (Tognini-Bonelli 2001 & Rayson 2003). In recent years, it is one of the innovations in the linguistic inquiry that has facilitated researchers in the statistical and analytical studies of language (Gries & Mukherjee 2010). The corpus-based approach is selected for the current study because it has a lot of advantages for a researcher. For Kilgarriff and Salkie (1996) corpus-based approach provides the advantage of converting the entire text into frequency lists which are more amenable to statistical analysis. It enables a detailed analysis of keywords used in a specific text (Scott & Tribble 2006), analysis of book reviews (Hyland & Diani 2009) and description of 'lexical bundles', etc. (Biber, Conrad & Cortes 2004; Cortes 2004; Nesi & Basturkmen 2006; and Hyland 2008).

Data Collection and Analysis

A total of 100 Ph.D. dissertations including 36 in English Literature, 31 in English Linguistics, and 33 in English Language Teaching (ELT) were collected from different universities in Pakistan. Sample corpora of the literature review chapters of the collected Ph.D. dissertation were compiled. A keyword list of the categories and types of verbs by following the 'Typology of verbs' (Frels, Onwuegbuzie, & Slate 2010) was generated and the frequencies of the keywords list were analyzed with the software Antconc (version: 3.4.1.0). The key words list includes the following categories and types of verbs.

Categories of Verbs	Types of Verbs	Examples
Verbs Representing Statements	Explicit verbs	mentioned, stated, declared, pronounced, Remarked, noted, commented, documented, affirmed, pronounced, asserted, reported, discussed, addressed, summed, acquiesced, conceded, suspected, predicted, defined, indicated, ascertained, bracketed, outlined, advised, cautioned, admonished, delineated, operationalized, excoriated, specified and described, etc.
	Implicit Verbs	Speculate, assumed, explained, argued, Associated, reinforced, suggested, interpreted, implied, and considered, etc.
	Inclusive verbs	Included, characterized, contained, comprised, consisted of, categorized, labeled, and involved, etc.
Verbs Representing Cognition	Comparison verbs	Compared, contrasted, discriminated, distinguished, differentiated, triangulated, represented, agreed, acquiesced, varied, attenuated, reduced, etc.
	Verification verbs	Triangulated, confirmed, verified, established, corroborated, verified, confirmed, established, attested, designated, required, endorsed, validated, Supported, substantiated, acknowledged, etc.
	Interpretation verbs	Inferred, realized, and concluded, inferred, learned, Concluded, ascertained, investigated, realized, distinguished, interpreted, determined, deduced, Surmised, realized, represented, factored, grouped, Clustered, subdivided, contended, unraveled, estimated, etc.
	Cognition process verbs	Thought, believed and noticed, believed, thought, Identified, recognized, discerned, scrutinized, realized, noticed, reasoned, enlightened opined, etc.
	Reference verbs	Consult, summarise, expected, consulted, attested, decided, summarized, synthesized, expected, represented, necessitate, etc.
	Perception verbs	Conceived, felt, alluded, engendered, perceived, felt, alluded, etc.
	Proposition verbs	Speculate, hypothesize, established, posed, instituted,

			established, maintained, formalized, established, hypothesized, reviewed, surmised, speculated, conjectured, posited, put forward, associated, nominated, postulated, construed, proposed, provided, initiated, guided, theorized, gleaned, derived, debunked, framed, demanded, highlighted, etc.
Verbs Representing Knowledge	Evidence-based Data-Driven verbs	/	Note, observed, found, documented, experienced, found, embarked, encountered, noted, revealed, detected, tested, discovered, traced, observed, documented, experienced, uncovered, extracted, demonstrated, showed, emerged, surfaced, appeared, etc.
	Procedural verbs		Review, consulted, scrutinized, adapted, analyzed, examined, performed, conducted, undertook, consulted, scrutinized, consented, originated, composed, produced, conceptualized, consulted, reviewed, evaluated, contrived, investigated, obtained, connected, applied, built, sought, examined, etc.
	Visual verbs		Exhibit, display, illustrated, exhibited, displayed, graphed, illustrated, presented, mapped, Depicted, represented, elucidated, etc.
	Direct object verbs		Sample, provide, gather, collect, composed, Sampled, randomized, chose, selected, elected, Developed, contrived, modeled, provided, Procured, preferred, provided, sampled, randomized, extended, used, utilized, employed, expanded, etc.
	Creation verbs		Craft, originate, develop, originated, Generated, synthesized, engendered, stimulated, Instituted, constituted, theorized, established, Developed, maintained, devised, invented, devised, expanded, etc.

Table 1. Typology of Verbs (Frels et al, 2010)

Results and Discussion

The above types of verbs occurred with a total frequency of 8346 in the corpus of literature review chapters of Ph.D. dissertations in English literature, with the frequency of 18959 in ELT and with a total frequency of 11885 in English linguistics. Detailed analysis of the above categories and types of verbs is as under.

Verbs Representing Statements

The category of verbs representing statements occurred with the frequency of 2544 in the corpus of English literature, with 4455 times in ELT and 3284 in English linguistics. It consists of different types of verbs like explicit, implicit, and inclusive verbs. Explicit verbs occurred with the frequency of 1346 in English literature, 2065 in ELT, and 1679 in English linguistics. These verbs have been found performing the functions of explicitly or overtly representing statements and stating arguments in a definite and clear manner in encoding review of research in the literature review chapter of dissertations. Implicit verbs occurred with the frequency of 747 in the corpus of English literature, 1393 in ELT, and 798 times in English linguistics. These verbs have been identified performing the functions of representing arguments impliedly or implicitly in encoding the review of related research in the literature review. Whereas, inclusive verbs occurred with the frequency of 451 times in the corpus of English literature, 997 in ELT and 807 times in English linguistics. These verbs are used to connect different arguments and inclusively represent statements by comprehensively encompassing different concepts and aspects in encoding a review of different research in the literature review chapter.

The comparison of all the types of verbs in this category shows that explicit verbs occurred with the highest frequency in all the three corpora that exemplify the importance of the use of these verbs in encoding the review of different research in literature review chapter. Implicit verbs occurred with second higher frequency in English literature and ELT but, these verbs occurred with the least frequency in English linguistics. Whereas, inclusive verbs occurred with the least frequency in literature and ELT, but occurred with second higher frequency in the literature review chapters of Ph.D. dissertations in English Linguistics. The comparative

analysis of these three types of verbs manifests the importance of explicit verbs in representing statements in the encoding of the literature review. The excessive use of explicit verbs has illustrated that in the encoding of literature review, statements are mainly represented by utilizing explicit verbs; thus it can be inferred that scholars prefer the definite and clear expressions of arguments while writing a review of the literature. Whereas, the occurrence of implicit and inclusive verbs has also exemplified the use of these verbs in connecting different arguments in representing statements in the literature review chapter of dissertations.

Verbs Representing Cognition

The category of verbs representing cognition occurred with the total frequency of 3070 in the corpus of the literature sections of Ph.D. dissertations in the field of English Literature, 8033 in ELT, and 3779 in English Linguistics. It consists of different types of verbs i.e. comparison, verification, interpretation, cognition process, reference, perception, and proposition verbs. Comparison verbs occurred with the frequency of 517 times in the corpus of ELT, 229 times in English Literature and 378 times in English Linguistics. These verbs are used with the functions to compare and contrast different researches and arguments to facilitate and represent cognition in the literature review chapters of dissertations. Verification verbs occurred with the frequency of 338 times in the corpus of English Literature, 586 in ELT, and 492 times in English Linguistics. These verbs are used to authenticate and verify arguments to facilitate cognition in the review of the literature. Interpretation verbs occurred with the frequency of 191 times in the corpus English Literature, 3682 times in ELT, and 972 times in English Linguistics. These verbs are used to represent the evaluative inferences in the review of literature for developing cognition.

Cognition process verbs occurred with the frequency of 783 times in the corpus of English Literature, 1077 in ELT, and 637 times in English Linguistics. These verbs perform the functions of developing cognition through the arguments presented in the literature review section. Reference verbs occurred with the frequency of 205 times in the corpus of English Literature, 287 times in ELT, and 232 times in English linguistics. These verbs referred to different researches in view of developing cognition. Perception verbs occurred with the frequency of 273 times in the corpus of English Literature, 432 times in ELT, and 184 times in English linguistics. These verbs are used to encode the observation and perception of different scholars to facilitate cognition in a comparative manner in the literature review chapter of dissertations. The last type of verb in this category is proposition verbs that occurred with the frequency of 1051 times in the corpus of English Literature, 1452 times in ELT, and 884 times in linguistics. These verbs are used to suggest or propose a different argument for representing cognition in the review of the literature.

If all the types of verbs in this category are compared it can be observed that proposition verbs occurred with the highest frequency in the corpora of literature review chapters of dissertations in the areas of English Literature and linguistics, whereas, interpretation verbs occurred with the highest frequency in ELT. Cognition process verbs occurred with second higher frequency in the corpus of English literature, Proposition verbs in ELT, and interpretation verbs in English Linguistics. Verification verbs occurred with a third higher frequency in the corpus of English literature, whereas, cognition process in ELT and English Linguistics. Perception verbs occurred with a fourth higher frequency in the corpus of English literature, verification verbs in ELT, and English linguistics. Comparison verbs occurred with a fifth higher frequency in the corpora of English literature, ELT, and English linguistics. Reference verbs occurred with a sixth higher frequency in the corpora of English literature and linguistics, whereas, perception verbs occurred with the sixth higher frequency in ELT. In the corpus of dissertations in the area of English literature interpretation verbs occurred with the least frequency, reference verbs in ELT, and perception verbs in English linguistics. Comparative analysis of these types of verbs illustrates the primary importance of interpretation verbs, proposition verbs, cognition process verbs, verification, and comparison verbs. These verbs have preferably been used in developing of cognition in encoding the review of literature in dissertations. Whereas, the frequencies of the types of verbs like perception and reference verbs manifests the less frequent use and the secondary importance of these verbs in representing cognition in the literature review sections of dissertation in the field of English Language Teaching.

Verbs Representing Knowledge

In the corpus of literature review sections in the Ph.D. dissertations of English Literature, verbs representing knowledge occurred with the total frequency of 2759, 6471 times in ELT and 4822 times in English linguistics. This category of verbs consists of different types of verbs i.e. evidence-based / data-driven verbs, procedural verbs, visual verbs, direct object verbs, and creation verbs. Evidence-based/data-driven verbs occurred with the frequency of 1334 in English Literature, 2030 times in ELT and 1319 times in English Linguistics. These verbs perform a very important function of exemplifying evidence or data in the representation of knowledge in encoding a review of the literature. Procedural verbs occurred with the frequency of 337 times in the corpus of English literature, 796 times in ELT, and 700 times in English Linguistics. These are used to fulfill the

procedural requirements in the development and representation of knowledge in the literature review chapters of dissertations in the field of English studies. Visual verbs occurred with the frequency of 101 times in the corpus of English Literature, 96 times in ELT, and 122 times in English Linguistics. These verbs have performed the functions of exemplifying visual elements in the representation and comprehension of knowledge presented in the review of literature in dissertations. Direct object verbs occurred with the frequency of 746 times in the corpus of English Literature, 2740 times ELT, and 2350 times in English Linguistics. These verbs illustrate certain objects that are used for the functions of bringing understanding and clarity in the development of knowledge in the review of the literature. Whereas, the last type of verb in this category is creation verbs that occurred with the frequency of 241 times in the corpus of English Literature, 809 times in ELT and 331 times in English Linguistics. These verbs are used to originate or create a certain component of knowledge required for the coherent understanding of researches encoded in the literature review chapter of the dissertation in the field of English linguistics.

If we compare the frequency of the different types of verbs used in this category, it is observed that evidence-based/data-driven verbs occurred with the highest frequency in the corpus of English literature but occurred with a second higher frequency in ELT and Linguistics. Direct object verbs occurred with the highest frequency in ELT and Linguistics but occurred with second higher frequency in literature. Procedural verbs occurred with third higher frequency in literature and linguistics but creation verbs in ELT. Creation verbs occurred on the fourth higher frequency in literature and linguistics but procedural verbs in ELT. Whereas, visual verbs occurred with the least frequency in all three corpora i.e. ELT, Linguistics, and literature. It illustrates that in the literature review chapter of Ph.D. dissertations in the field of English studies, in encoding review of literature in the dissertation; knowledge is represented mainly by the frequent use of evidence-based/data-driven verbs, direct object verbs, and procedural verbs. Whereas, the less frequent use of creation verbs and visual verbs illustrates the secondary functions of these types of verbs in representing knowledge in the literature review chapter.

Comparative Analysis of the Categories and Types of Verbs

The following table presents the comparative analysis of all the categories and types of verbs used in the literature review sections of Ph.D. dissertations in the field of English Literature, English Language Teaching, and English Linguistics.

Categories of Verbs	Types of Verbs	English Literature	English Language Teaching	English Linguistics
Verbs Representing Statements	Explicit Verbs	16%	10.8%	14.1%
	Implicit Verbs	8.9%	7.3%	6.7%
	Inclusive Verbs	5.4%	5.2%	6.7%
	Total	30.4%	23.4%	27.6%
Verbs Representing Cognition	Comparison Verbs	2.7%	2.7%	3.1%
	Verification Verbs	4%	3%	4.1%
	Interpretation Verbs	2.2%	19.4%	8.1%
	Cognition Process Verbs	9.3%	5.6%	5.3%
	Reference Verbs	2.4%	1.5%	1.9%
	Perception Verbs	3.2%	2.2%	1.5%
	Proposition Verbs	12.5%	7.6%	7.4%
	Total	36.7%	42.3%	31.7%
Verbs Representing Knowledge	Evidence Based/ Data Driven Verbs	15.9%	10.7%	11%
	Procedural Verbs	4%	4.1%	5.8%
	Visual Verbs	1.2%	0.5%	1%
	Direct Object Verbs	8.9%	14%	19.7%
	Creation Verbs	2.8%	4.2%	2.7%
	Total	33%	34%	40.5%

Table 2. Comparative Analysis

The comparative analysis of the categories and types of verbs in the corpora of literature review sections of Ph.D. dissertations in the field of English Literature, English Language teaching and English Linguistics manifests the percentage with which different categories of verbs i.e. verbs representing statements, verbs representing cognition and verbs representing knowledge have been used in these dissertations. The comparison of the percentage of these different categories of verbs illustrates the greater use of verbs representing cognition in the literature review sections of the Ph.D. dissertations in the field of English Literature and English

Language Teaching as compared to the other two categories of verbs i.e. verbs representing statements and knowledge. In both these fields of English studies the category of verbs representing knowledge occurred in second greater frequency after verbs representing cognition. Whereas, in the literature review sections of Ph.D. dissertations of English Linguistics verbs representing knowledge occurred with greater frequency as compared to verbs representing cognition. Yet, verbs representing statements occurred with the least frequency in the literature review sections of Ph.D. dissertations in all the three fields of English studies. It can be inferred that in writing a literature review in dissertations scholars need to give preference to the development of cognition and knowledge as compared to the simple representation of statements. Though in reviewing previous research writers use verbs representing statements for central reporting, yet, abundant use of verbs representing cognition and knowledge illustrates the primary functions of encoding research in the literature review chapter.

Frels et al. (2010) have illustrated that in the literature review section of research articles in the field of social and health sciences verbs representing statements that occurred with abundance, therefore, perform primary functions in encoding research. The use of verbs representing cognition has also been found in abundance which manifests the primary functions of these verbs but verbs representing knowledge have occurred with less frequency in the literature review section of research articles. If we compare the use of these categories of verbs in dissertations with the use of these verbs in the literature review section of articles (Frels et al. 2010), it can be observed that there is a mark difference in the use of these verbs in these two genres of EAP. In dissertations, verbs representing cognition along with verbs representing knowledge play primary functions whereas in research articles verbs representing statements along with verbs representing cognition perform primary functions in encoding research in literature review sections. Verbs representing statements perform secondary functions in dissertations whereas verbs representing knowledge perform secondary functions in encoding research in literature review sections of research articles. Keeping in mind the limitation of the word limit, review of literature is encoded in a summative manner in research articles as compared to dissertations that can be the reason for the abundant use of verbs representing statements. In dissertations, writers have the autonomy to use language and can give a review of literature in an extended manner therefore instead of emphasizing on verbs representing statements their emphasis is more on developing knowledge in the context of their research. Yet, in both the genres verbs representing cognition have been found with abundant use that refers to the primary importance of the use of verbs representing cognition in manifesting the cognitive functions of literature review in encoding research.

In the category of verbs representing statements, the frequency of explicit verbs is greater than implicit and inclusive verbs in the corpora of literature review sections of Ph.D. dissertations in all the three fields of English studies. Implicit verbs occurred with second greater frequency in all the corpora; whereas, inclusive verbs occurred with the least frequency in the three corpora of literature review sections of Ph.D. dissertations. Whereas, Frels et al. (2010) have found that in research articles both explicit and implicit verbs are used in abundance which shows the primary functions of these verbs in encoding research in the literature review section. Whereas, the use of inclusive verbs has not been found in abundance in research articles which refers to the secondary use of these verbs. If we compare and contrast the use of these types of verbs in research articles with the use of these verbs in dissertations, it can be observed that in dissertations the use of explicit verbs has been found in abundance therefore explicit verbs perform primary functions whereas, implicit and inclusive verbs occurred with less frequency thus perform secondary functions in encoding research in the literature review section of dissertations in the field of English studies in Pakistan. The primary use of explicit verbs in both the genres manifests that statements are encoded clearly and overtly in reviewing the literature, yet, in research articles due to the limitation of the format writers also rely on implicit verbs to be able to encode statements in implied manner. The secondary use of inclusive verbs in both the genres shows that writers do not encode statements in a general way rather they represent statements in a clear, vivid, and specific manner.

In the category of verbs representing cognition, proposition verbs occurred with greater frequency in the fields of English literature as compared to all the types of verbs in this category. Whereas, in the field of English language teaching and Linguistics interpretation verbs occurred with greater frequency as compared to all the types of verbs in this category. Proposition verbs occurred with second greater frequency in the field of English language teaching and linguistics whereas, in the field of English literature cognition process verbs occurred with second greater frequency. In the field of English language teaching and linguistics cognition process verbs occurred with third greater frequency. Verification verbs occurred with a third greater frequency in English literature whereas, it occurred with fourth greater frequency in the field of English language teaching and linguistics. Comparison, perception, and reference verbs occurred with almost the same ratio in the literature review sections of Ph.D. dissertations in all the three fields of English studies. It can be inferred that in representing cognition in the literature review sections of Ph.D. dissertations, proposition, interpretation, cognition process and verification verbs are of primary whereas comparison, perception, and reference verbs are of secondary use. Frels et al. (2010) have found the abundant use of reference verbs in the literature review

section of research articles therefore these verbs perform primary functions whereas proposition and cognition process verbs occurred with less frequency thus perform secondary functions. The comparative analysis shows that in the genre of dissertations encoding of research requires the primary use of proposition and cognition process verbs whereas reference verbs perform secondary functions. In dissertation writers have to hypothesize the main argument of their research regarding the reviewed literature and the hypothesized argument is to be made comprehensible to the readers therefore use proposition and cognition process verbs. Whereas, according to the findings of Frels et al., (2010) reference verbs perform primary functions whereas proposition and cognition process verbs perform secondary functions in encoding research in articles which shows that in the cognition of the readers are mainly developed through the extensive use of direct reference without explaining the reviewed literature in detail.

In the category of verbs representing knowledge, direct object verbs are used in a greater frequency as compared to all the other types of verbs in the field of English language teaching and linguistics whereas, in the field of English literature direct object verbs occurred with second greater frequency. Evidence-based/data-driven verbs occurred with the greater frequency in the field of English literature; whereas, it occurred with the second greater frequency, creation verbs on fourth and visual verbs on fifth in all the three fields of English studies. It can be inferred that in representing knowledge in the literature review sections of Ph.D. dissertations in the field of English studies, evidence-based/data-driven verbs are of great significance and scholars preferred their use whereas, procedural, creation and visual verbs are used as per the requirement of the literature review section. Frels et al. (2010) have found the minimum use of the category of verbs representing knowledge in the literature review section of research articles which shows that in the genre of research articles the primary focus is on representing statements aligned with cognition in encoding research whereas in dissertations the primary focus is on the representation of cognition aligned with knowledge.

Conclusion

Academic writing encompasses components of formal writing and is therefore effective when writing conventions are followed as per the familiar and convincing practices of the other members of the same discipline. Dissertations and research articles are the two basic genres in academic writing in which scholars and researchers encode their research and communicate with the academic community in their particular discipline. Both the genres are closely associated and are thus considered as part and parcel of one another. Literature review performs the same functions in both these genres but it is written in detail in dissertations as a separate chapter whereas it is only a section of some paragraphs in research articles. The study has specifically shown the frequently used verbs and their functions in encoding research in the literature chapter of dissertations. The research of Frels et al. (2010) has divided the generic features of functions of verbs into three domains i.e. verbs representing statements, cognition, and knowledge. Frels et al. (2010) found that in research articles across different disciplines; in literature review sections verbs representing statements perform a primary function in encoding research.

The current study has compared the generic features of the use of these categories and found that verbs representing cognition along with knowledge perform primary functions in encoding research in the literature review chapter of dissertations in the field of English studies in Pakistan. Though, there exist differences as well as similarities in the generic patterns of the use and functions of the categories and types of verbs in both these genres. In the literature review chapter of dissertations verbs representing cognition and knowledge occurred in abundance which shows the primary functions of these verbs in encoding research and verbs representing statements that occurred with minimum frequency. Thus, representing and developing cognition along with knowledge component are the primary functions of encoding research in the literature review chapter in dissertations. Whereas, in the literature review section of research articles verbs representing statements occurred in abundance which shows the primary functions of these verbs and verbs representing cognition perform secondary functions in encoding research. This shows that in the literature review chapter of dissertations the encoding of research emphasizes the representation of cognition whereas in research articles representing statements is the primary emphasis of encoding research in the literature review section. The similarities in terms of the use of the categories of verbs show the commonalities in terms of the functions of these verbs whereas, the contrast in the use of these categories of verbs shows the difference in terms of encoding research in both these genres. Novice writers need to understand these generic features to be able to encode the review of literature in the dissertation by keeping in mind the primary functions of the use of verbs.

References

American Psychological Association. 2010. Publication manual of the American Psychological Association (6th ed.). Washington, DC: Author.

- Bhatia, V. K. 1993. *Analysing genre: Language use in professional settings*. Harlow: Longman.
- Biber, D., Johansson, S., Leech, G., Conrad, S., and Finegan, E. 1999. *Longman grammar of spoken and written English*. London: Longman.
- Biber, D., Conrad, S., and Cortes, V. 2004. If you look at...: lexical bundles in university teaching and textbooks. *Applied Linguistics*, 25 (3): 371-405
- Bloch, J. 2010. A concordance-based study of the use of reporting verbs as rhetorical devices in academic papers. *Journal of Writing Research*, 2(2): 219-244.
- Canagarajah, A. 2002. Multilingual writers and the academic community Towards a critical relationship. *Journal of English for Academic Purposes* 1: 29-44.
- Charles, M. 2006. Phraseological Patterns in Reporting Clauses Used in Citation: A Corpus-Based Study of Theses in Two Disciplines. *English for Specific Purposes* 25: 310-331.
- Cortes, V. 2004. Lexical bundles in published and student disciplinary writing: examples from history and biology. *English for Specific Purposes*, 23 (4): 397-423.
- Dontcheva-Navratilova, O. 2008. Reporting verbs as indicators of stance in academic discourse. *Porta Lingua*, 97-104.
- Flowerdew, L. 1998. Corpus linguistic techniques applied to text linguistics. *System* 26: 541-552.
- Flowerdew, L. 2008. Determining discourse-based moves in professional reports. In Ädel and Reppen eds. *Corpora and discourse: The challenges of different settings*, 117-131. Amsterdam: Benjamins.
- Frels, R. K., Onwuegbuzie, A. J., and Slate, J. R. 2010. A Typology of Verbs for Scholarly Writing. *Research in the Schools*. Mid-South Educational Research Association, 17 (1): xx-xxxi.
- Gries & Mukherjee. 2010. "Lexical gravity across varieties of English: an ICE-based study of n-grams in Asian Englishes". *International Journal of Corpus Linguistics*, 15 (4): 520-548.
- Hawes, T., and Thomas, S. 1994. Reporting verbs in medical journal articles. *English for Specific Purposes*, 13(2): 129-148.
- Hiltunen, T. 2006. Coming-to-know verbs in research articles in three academic disciplines. In *Proceedings of the 5th International AELFE (Asociación Europea de Lenguas para Fines Específicos) Conference*, 246-251. <http://www.unizar.es/aelfe2006/>
- Hinkel, E. 2004. *Teaching Academic ESL Writing: Practical Techniques in Vocabulary and Grammar*. Mahwah, NJ and London: Erlbaum.
- Hyland, K. 1999. Academic attribution: Citation and the construction of disciplinary knowledge. *Applied Linguistics*, 20(3): 341-367.
- Hyland, K. 2000. *Disciplinary discourses: Social interaction in academic writing*. London: Longman Pearson Education.
- Hyland, K. 2002. Activity and evaluation: Reporting practices in academic writing. In Flowerdew, ed. *Academic discourse*, 115-130. Harlow, England: Longman.
- Hyland, K. 2004. Disciplinary interactions: Metadiscourse in L2 postgraduate writing. *Journal of Second Language Writing*, 13: 133-151.
- Hyland, K. 2005. Stance and engagement: A model of interaction in academic discourse. *Discourse Studies*, 7(2): 173-192.
- Hyland, K. 2008. Academic clusters: Text patterning in published and postgraduate writing. *International Journal of Applied Linguistics*, 18 (1): 41-62.
- Hyland, K., and Diani, G. 2009. *Academic Evaluation: Review Genres in University Settings*. Palgrave Macmillan.
- Hyland, K., and Tse, P. 2009. Academic lexis and disciplinary practice: corpus evidence for specificity. *International Journal of English Studies*, 9 (2): 111-130
- Jalilifar, A. 2012. Academic attribution: Citation analysis in master's theses and research articles in applied linguistics. *International Journal of Applied Linguistics*, 22(1): 23-41.
- Jalilifar, A., and Dabbi, R. 2012. Citation in applied linguistics: Analysis of introduction sections of Iranian master's theses. *Linguistik online*, 57(7): 91-104.
- Johns, M. A. 1997. *Text, role and context: Developing academic literacies*. Cambridge: CUP.
- Kern, R. 2000. Notions of literacy. In R. Kern, ed. *Literacy and language teaching* (pp. 13-41). New York: Oxford University Press.
- Kilgarriff, A., and Salkie, R. 1996. Corpus similarity and homogeneity via word frequency. In Gellerstam, Järborg, Malmgren, Norén, Rogström, and Pappmehl, ed. *Euralex '96 proceedings: Papers submitted to the Seventh EURALEX International Congress on Lexicography in Göteborg, Sweden*. 1(1): p. 121-130. Göteborg: University Department of Swedish.
- Kwan, B. S. C. 2006. The schematic structure of literature reviews in doctoral theses of applied linguistics. *English for Specific Purposes* 25: 30-55.
- Meyer, P. G. 1997. *Coming to know: studies in the lexical semantics and pragmatics of academic English*. Tübingen: Gunter Narr Verlag Tübingen.

- Nesselhauf, N. 2005. Collocations in a learner corpus. Amsterdam: Benjamins.
- Nesi, H., and Basturkmen, H. 2006. "Lexical bundles and discourse signaling in academic lectures". *International Journal of Corpus Linguistics*, 11 (3): 283-304.
- Paltridge, B., and Starfield, S. 2007. *Thesis and dissertation writing in a second language: A handbook for supervisors*. London: Routledge.
- Pecorari, D. 2008. *Academic writing and plagiarism: A linguistic analysis*. London: Continuum.
- Pennycook, A. 1996. "Borrowing other words: text, ownership, memory, and plagiarism". *TESOL Quarterly* 30: 201-230.
- Pot, A., and Weideman, A. 2015. Diagnosing academic language ability: An analysis of the Test of Academic Literacy for Postgraduate Students. *Language Matters*, 46: 22-43.
- Rayson, P. 2003. *Matrix: A statistical method and software tool for linguistic analysis through corpus comparison*. (Unpublished doctoral dissertation). Lancaster: Lancaster University.
- Scott, M., and Tribble, C. 2006. *Textual patterns: Keywords and corpus analysis in language education*. Amsterdam: Benjamins.
- Shaw, P. 1992. Reasons for the correlation of voice, tense, and sentence function in reporting verbs. *Applied Linguistics*, 13(3): 302-319.
- Soler-Monreal, C., and Gil-Salom, L. 2012. A cross-language study on citation practice in Ph.D. theses. *International Journal of English Studies*, 11(2): 53-75.
- Swales, J. M. 1990. *Genre analysis: English in academic and research settings*. Cambridge: Cambridge University Press.
- Swales, J. M. 2004. *Research Genres: Explorations and Applications*, Cambridge: Cambridge University Press.
- Swales, J. M., and Feak, C. B. 1994. *Academic Writing for Graduate Students*, Ann Arbor: University of Michigan Press.
- Swales, J. M., and Feak, C. B. 2000. *English in Today's Research World*, Ann Arbor: University of Michigan Press.
- Thompson, G., and Ye, Y. 1991. Evaluation in the reporting verbs used in academic papers. *Applied Linguistics*, 12(4): 365-382.
- TogniniBonelli, E. 2001. *Corpus linguistics at work* John Benjamins, Amsterdam
- Upton, T. A., and Connor, U. 2001. Using computerized corpus analysis to investigate the text-linguistic discourse moves of a genre. *English for Specific Purposes* 20: 313-329.
- Weideman, A. 2014. Innovation and Reciprocity in Applied Linguistics. *Literator*, 35(1): 10.
- Williams, I. A. 1996. A contextual study of lexical verbs in two types of medical research reports: clinical and experimental. *English for Specific Purposes* 15(3): 175-197.
- White, H. D. 2004. Citation analysis and discourse analysis revisited. *Applied Linguistics*, 25(1): 89-116.

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